

p209

Q2

$$y = 1.50x + 3.00$$

cost of a cab = y x = distance

a) cost if distance is 18km

$$y = ? \quad x = 18$$

$$y = 1.50x + 3.00$$

$$y = 1.50 \times 18 + 3.00 = 30$$

$$y = \$30$$

b) graph the equation

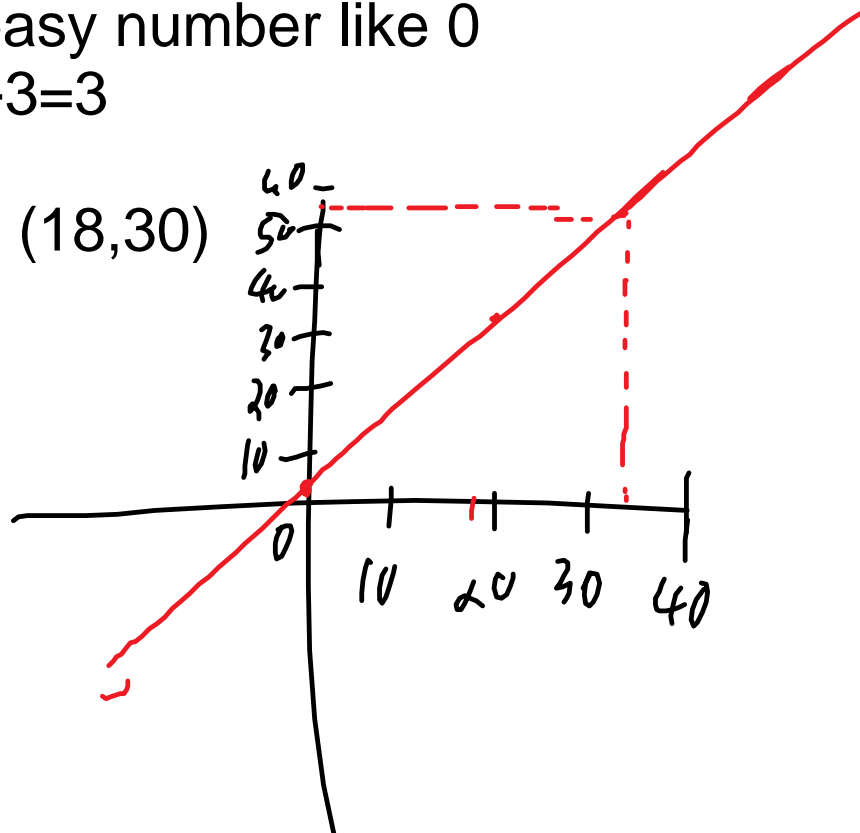
what points should we use to graph?

x = some easy number like 0

$$y = 1.5 \times 0 + 3 = 3$$

(0,3)

look at a (18,30)



c) if $y = 55$, what is x ?

$$55 = 1.50x + 3$$

$$-3$$

$$-3$$

$$34.7$$

$$x = 34.67$$

$$\begin{array}{r} -3 \quad -3 \\ \hline 52 = \frac{1.50x}{1.50} \end{array}$$

$$x = 34.67$$

$$x = 34\frac{2}{3} \text{ km}$$

$$x = 35 \text{ km}$$

rounded up

$$a) -1000 - 20x = C$$

$$b) +30x = R$$

$$c) -1000 - 20x + 30x = y$$

$$-1000 + 10x = y$$

$$d) y = 0 \quad x = 100$$

Homework

Q11

you pay \$1000 every month overhead
you pay \$20 per item you make

you sell for \$30 per item

a) monthly cost (no income)

$$C = 1000 + 20x$$

b) monthly revenue

$$R = 30x$$

c) monthly profit

$$P = R - C$$

$$P = 30x - (1000 + 20x)$$

$$P = 30x - 1000 - 20x$$

$$P = 10x - 1000$$

d) find the break even - when $P > 0$

$$0 = 10x - 1000$$

$$\begin{array}{r} +1000 \quad +1000 \\ \hline \end{array}$$

$$\begin{array}{r} 1000 = 10x \\ \underline{10} \quad \underline{10} \end{array}$$

$x = 100$ units to break even

p 213-218 Q 1-8, 12, 13, 15, 16, 18-22 LHS

homework check doubleblock day during the
test